

CURRENT TOPIC

Physical education and the national curriculum

Ian A McKinlay

In August 1991 the Department of Education and Science and the Welsh Office published their proposals for attainment targets and programmes of study in physical education (PE) for all children of compulsory school age (5-16 years) in maintained schools in England and Wales.¹ These were devised with the help of a working group that also offered proposals for assessment arrangements, though it is only attainment targets and programmes of study that came into force in the autumn of 1992 (key stages 1-3) and key stage 4 will come three years later.

Working group

The working group was set up in 1990 and chaired by the head master of Harrow School and was made up of a PE adviser to Manchester local education authority (from January 1991), a professor of geography, the head of a Berkshire primary school, the deputy head of a Welsh high school, a lecturer at Birmingham Medical School, the head of Chelsea School of Human Movement, Brighton (and formerly of Dunfermline College of PE in Edinburgh), the director of customer communications at the National Westminster Bank, the education officer for the Arts Council, a manager with IBM, the assistant dean of Leeds Polytechnic, the deputy head of a Durham comprehensive, Mr John Fashanu of Wimbledon Football Club, and Mr Steve Ovett, athlete and broadcaster.

Out and about

In 1990 and 1991, while preparing their report, the working group went to 11 institutions to observe aspects of PE in practice. These were four secondary schools (Dewsbury, Peterborough, and two in Durham) a primary school in Manchester, a special school in Darlington, a contemporary dance school and a polytechnic in Leeds, a community school in Peterborough, and an outdoor education site in Birmingham. There was also an outdoor education presentation by a primary school in Newport, Gwent.

Lessons from Europe

Small delegations went on three day visits to France, Germany, and Sweden where they met officials, inspectors, teachers, trainers, and lecturers for discussion and watched the subject being taught. Among the interesting differences

are the ages of compulsory education: 5-16 (UK), 6-16 (France), 6-15 (Germany), and 7-16 (Sweden). Most students continue after the compulsory age in each country. Also the time allocated varies.

In France PE/sport accounts for five hours out of 27 per week, third only to French and mathematics, in primary school and three hours out of 24 in secondary school. French pupils are expected to be able to swim 500 metres in open water by the end of their schooling. The quality of outdoor activity facilities is impressive. Physical education includes dance and activities that can continue in adult life.

In Germany, there are two PE lessons per week up to age 7, then four lessons per week until school leaving age. In secondary school, two of these lessons are in the afternoons out of school hours, and are compulsory up to age 19. Dance is not available to all pupils in Germany but swimming is, and participation in a residential sports camp is expected during school years. Pupils are assessed each year in sport with written oral and practical examinations. However, failure does not prevent progression into the next year. Among the particular aspects stressed in the sports curriculum are the environment, fairness and cooperation, and expressive/creative aspects. Schools that lack facilities (for example a pool) share with other schools or use public facilities free. Cooperation between schools and clubs is encouraged. Clubs use school facilities out of school hours and many pupils play for these clubs. There is a highly organised system of sports' competitions from local to federal level in 18 sports and there are also competitions for special schools.

In Sweden, pupils who remain in education have compulsory sports' education up to 19 also. Sports include dance, gymnastics, orienteering, swimming, lifesaving, ski-ing, skating and ice safety, as well as athletics. The aim is to develop physical movement, to foster interest in open air life, and to acquire functional techniques. Children aged 7-9 have two lessons per week and those aged 10-15 have three. All pupils have a minimum of 15 hours' instruction in swimming. Swedish schools, like those in Britain, are going through a transition to local management of budgets, part of which is 'ring fenced' to ensure that outdoor education takes place. Six days a year away from school is the norm, but further three to 10 day residential experiences are recommended. At present these are free for schools to use but this may change with developed budgets.

Department of Child Health, Royal Manchester Children's Hospital, Pendlebury, Manchester M27 1HA
Ian A McKinlay

Correspondence to:
Dr McKinlay.

Gifted children

For British children of exceptional talent the need for balance between development and nurture and excessive pressure to compete too often or train in unsocial hours is discussed. It is acknowledged that some children are pressed to do too much, leading to tiredness, injury, and disillusionment.

Key stages

There are four key stages and 10 non-statutory levels of attainment that teachers are encouraged to use in planning lessons and assessing progress. The emphasis is on participation, although ability to plan and evaluate is included. Activities for children aged 5–11 should include athletic activities, dance, games, gymnastic activities, outdoor/adventurous activities, and swimming. The attainment for key stage 2 requires that all pupils should be able to swim at least 25 metres by age 11.

Between 11–14 years (key stage 3) swimming is no longer required but games and dance or gymnastics are compulsory as well as two other activities from key stages 1 and 2. Between 14–16 years (key stage 4) pupils not taking GCSE in physical education must take at least two PE subjects. These can be two games (for example hockey and cricket) or two different activities (for example dance and canoeing). The activities are the responsibility of the school, as is the assessment of pupils, but pupils may undertake activities at a local sport or dance club.

Community life

Quite apart from the national curriculum, the working group offers recommendations on a wide range of issues affecting involvement of young people in physical activity. Physical education develops understanding of the use, knowledge, and movement of the body. It develops competence in worthwhile activities at school and throughout life, promotes physical development and expression through movement, and promotes self confidence with experience of achievement, ability to cope with success as well as failure in competition. Pupils learn to solve problems, to cooperate with others, and to win or lose with good grace. Links are forged between schools and communities and across cultures. Some pupils achieve success beyond that in other parts of the curriculum – it is another chance for pupils to show what they can do.

The decline in school based extracurricular sport is beyond doubt and the total amount of time devoted to physical education in the curriculum has been reduced. However, the importance of sport, especially team games, within physical education is stressed. It is asserted that there has been no reduction in the numbers of young people taking part in sport as a whole and the General Household Survey is quoted to suggest that more young people are participating in a wider range of sports.

Equal opportunities

No doubt the Secretary of State at the time, Mr

Kenneth Clarke, felt quite exhausted by the contemplation of all this activity, and has not accepted all the advice. Almost 500 others expressed views at the interim stage of the report and these views have been taken into account in the present version, which is recommended reading for all those involved in child health.

Hands up all who know that 77% of primary schools provide dance for boys and girls whereas 72% of secondary schools provide dance for girls and only 44% for boys. A quarter of all primary schools claim to require immediate in-service training were dance to become compulsory at key stages 1 and 2.

Altogether 71% of primary schools and 56% of secondary schools take part in outdoor education. Corresponding figures for swimming are 85% and 69%. Only 7% of primary and secondary schools blame inaccessibility of a pool as the reason for not providing as much swimming as they would wish.

The need to work towards equality of opportunity, not only access, is discussed in a short chapter and in a substantial appendix. This requires understanding of the range of pupils' responses to femininity, masculinity and sexuality, of the whole range of ability and disability, of ethnic, social, and cultural diversity and the ways in which these affect children's attitudes to physical education. In-service training, audit of present and future practice, and a willingness to review attitudes will be required. (It is not only true for physical education. How many boys in comprehensive schools do you see in orchestras?) There are major sex differences in the study of arts and sciences too.

Mainstream programmes

About a fifth of the main text is taken up with recommended programmes of study for pupils in mainstream schools. The next section, about half as long, concerns programmes for children with special needs, be they in mainstream or special schools. Distinction is drawn between children who have had formal assessment under the 1981 Education Act and children with special needs in physical education because of movement difficulties. Reference is also made to the needs of gifted children in this section.

Children with special educational needs

The principles of provision of physical education to children with special educational needs are entitlement, accessibility, integration, and integrity of a modified or substitute activity. These are developed in an appendix and there is a short special needs section in the chapter on assessment. The purpose of the chapter in the main text is to clarify the implication of particular kinds of impairment for physical activity and learning in physical education and to explain the application of the national curriculum programmes of study for children with special educational needs. The applicability to special schools and mainstream schools varies from section to section. While the language of instruction for PE programmes has been designed to allow as wide understanding of these as possible

there are some pupils for whom interpreting, modifying, or substituting activities may be appropriate and examples are given.

In the section on children with physical impairments there is a brief section of two sentences on children with motor learning difficulties but without evidence of specific disorders. For them it is recommended that 'Awareness of the difficulties, appropriate task setting and reinforcement of success are strategies to enable these children to have a positive and enjoyable experience of physical education'. This is wise, if brief, advice. There are short paragraphs on children with sensory impairments, learning difficulties, emotional problems, and behavioural disorders.

Partnerships in provision

Partnership between schools and other groups in the community is discussed. This is important because this is the where policy is moving to and because community facilities are the means whereby school leavers can continue to be active.

Health promotion

The interface between health and physical education is referred to in relation to cross curricular matters and, fleetingly, in relation to partnerships in provision. There is useful discussion of the role of physical activity in general health promotion, prevention of chronic disorders in health education, but only a word on specific health problems ... 'exercise improves the management of existing disorders (for example asthma and diabetes) and contributes to mental well being, enhanced mood, psychological outlook and a positive body image'.

Where do we fit in?

There is a diagram of a five layered onion of the potential range of participants in partnerships surrounding children. The local health authority is one of the 37 organisations referred to (in the 'responsible agency' layer but not in the 'delivery mechanism' layer or in the text). It does not seem that child health services loom large in the thinking of physical educators. Those therapy departments who treat children with motor learning difficulties ought to take stock of their role.

There is a need for good liaison with health staff to facilitate provision for children with chronic health problems. For instance, teachers' understanding of asthma, diabetes, health promotion, epilepsy, grommets, etc can be incomplete to the detriment of children's participation in sport and physical activity. It has not been easy to have health topics on the in-service training programmes of teachers with all the new administrative priorities to learn about. Now that few schools have a nurse on the staff other than for flying visits and there are no routine examinations of children after school entry, it is not easy for teachers to discuss health matters unless contact is made with the general practitioner. In one of the schools I visit the children are served by 52 different general practitioners so

it cannot lead to close working relationships.

In any one day in inner city high schools up to a quarter of pupils may be absent. Some of these give health reasons for absence but there is no systematic way of verifying that. For instance if it were the case that children who were absent for more than 10% of a term had an 'occupational health' check it might well lead to improved attendance in future.

Health for all children

The national curriculum is for all children and the purpose of physical education is to promote general fitness rather than train Olympic champions or to remedy motor difficulties or disabilities. There are grounds for concern about fitness in general.^{2,4} The response to the national curriculum proposals has been mixed.^{5,6} It is timely that the subject is creating such interest both for mainstream pupils⁷ and for children with special needs.^{8,9}

Lack of fitness relates to diverse problems including lack of safety in parks and roads and lack of organised play schemes in holidays and cost of equipment as much as lack of access to sports centres. It is reasonable for there to have been a broad input to the curriculum proposals. Further comment is welcome (see below) from organisations or individuals. Over 600 such comments had been received by the time this report was published.

Fit for the future

How can health and education staff develop a more effective partnership in future? It is usual for a local education authority to have an adviser in physical education, often as one of several duties, sometimes including health education. It may be feasible for a community paediatrician and the heads of physiotherapy and occupational therapy services to meet from time to time to discuss operational matters. Secondly there is a case for regular local multidisciplinary in-service training. Health and education staff have a good deal to teach each other, yet the compartmentalisation of training budgets and programmes can prevent this. For a teacher to be out of school costs the local education authority a substantial amount, including the cost of a supply teacher. Thirdly, in some authorities a multidisciplinary group with a particular interest in children's movement may sponsor regular meetings where innovations in practice, parents' and pupils' experience, research, and audit can be discussed. The 'Eastern Motor Group' in East Anglia has been an example of that. If each of these groups met once a year it would benefit our services and, hopefully, our children.

Subject to availability, copies of the report may be obtained, free of charge, from: National Curriculum Council, Information Section, Albion Wharf, 25 Skeldergate, York YO1 2XL (for England) or Schools Curriculum Division 1, Welsh Office Education Department, Phase 2, Government Building, Ty Glas Road, Llanishen, Cardiff CF4 5WE (for Wales).

1 Department of Education and Science/Welsh office. *Physical education for ages 5-16: proposals of the secretary of state for education and science and the secretary of state for Wales*. London: HMSO, 1991.

2 Anonymous. Young and unfit? *Lancet* 1992; 340: 19-20.

- 3 Gloag D. Exercise, fitness, and health. *BMJ* 1992; 305: 377-8.
- 4 Department of Health. *The health of the nation: a strategy for health in England (sic)*. London: HMSO, 1992.
- 5 Sugden D. PE: movement in the right direction. *British Journal of Education* 1991; 18: 134-6.
- 6 Brinson P. Badly out of step. *Times Education Supplement* Platform 6 March 1992.
- 7 Davis RJ, Ball CR, Roscoe JV, Roscoe DA. *Physical education and the study of sport*. London: Wolfe Publishing, 1991.
- 8 Birmingham Education Department Health Education Unit. *Guidelines for pupils with special educational needs*. Martineau Education Centre, 74 Balden Road, Birmingham B32 2EH.
- 9 Combes G, Iqbal S. 'Special needs' health guidelines have pointers for all pupils. *Education and Health* 1992; 10: 14-5.

Chromosome 22 and congenital heart disease

The children of people with congenital heart disease have an overall risk of some 3 to 16% of themselves having congenital heart disease, the risk varying with the type of lesion. Two syndromes of which congenital heart disease is a feature, DiGeorge syndrome* and Shprintzen's syndrome*, are commonly associated with deletions on the long arm of chromosome 22.

Workers in Newcastle and London (D I Wilson and colleagues, *Lancet* 1992; 340: 573-5) have examined nine families in which more than one member had congenital heart disease. DNA analysis showed deletions on the long arm of chromosome 22 (22q11) in nine of 10 surviving members with heart disease from five families. The 10th member, a young child with tetralogy of Fallot had not yet been tested. In one of these families three affected children and their father, who was normal, had a deletion at 22q11. Two of the children in this family had features of DiGeorge syndrome as well as their heart disease. In four families no deletion of chromosomal material was found.

The heart disease was varied. In the five families with deletions there were 14 individuals with heart disease and they had tetralogy of Fallot (n=4), pulmonary atresia and ventricular septal defect (n=3), patent ductus arteriosus (n=2), truncus arteriosus (n=1), ventricular septal defect, right aortic arch, and anomalous left subclavian artery (n=1), absent pulmonary valve, ventricular septal defect, and dextrocardia (n=1), interrupted aortic arch, ventricular septal defect, and anomalous right subclavian artery (n=1), and unclassified heart defect (n=1). The authors have evidence that about 5% of people with tetralogy of Fallot have a submicroscopic deletion at 22q11 and that this accounts for most cases of heart disease in the children of those with the tetralogy. They conclude that 'rapid, reliable methods of screening for this deletion are clearly necessary to identify the subgroups of patients who have a 50% risk of affected offspring'. It seems that the phenotypic possibilities with a deletion in this region include normality, DiGeorge syndrome, Shprintzen's syndrome, and heart disease of various kinds with or without the other features of these syndromes.

ARCHIVIST

*DiGeorge syndrome: outflow tract defects of the heart, thymic hypoplasia or aplasia, hypoparathyroidism, and 'dysmorphic appearance'. Shprintzen's syndrome (velo-cardio-facial syndrome): overt or submucous clefts of the palate, hypernasal speech secondary to velopharyngeal incompetence, dysmorphic facial appearance, and congenital heart disease.